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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/657,501	09/08/2000	Marc Noel Blais	ROC9-2000-0095-US1	2860
46296	7590	11/17/2004	EXAMINER	
MARTIN & ASSOCIATES, LLC IBM INTELLECTUAL PROPERTY LAW DEPARTMENT DEPARTMENT 917, BUILDING 006-1 3605 HIGHWAY 52 NORTH ROCHESTER, MN 55901-7829			HOANG, PHUONG N	
			ART UNIT	PAPER NUMBER
			2126	

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/657,501

Applicant(s)

BLAIS, MARC NOEL

Examiner

Phuong N. Hoang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 - 41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3,4,12,15,16 and 24 is/are allowed.
- 6) ☒ Claim(s) 1, 5 - 7, 13, 17 - 19, 25 - 41 is/are rejected.
- 7) ☒ Claim(s) 2, 8 - 11, 14, 20 - 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) *  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1 – 41 are pending for examination.

#### ***Claim Rejections - 35 USC § 101***

2. Claims 26 – 41 are rejected under 35 U.S.C. 101 because they are directed to non-statutory subject matter.
3. Claims 26 – 41 are directed to program product steps which can be practiced mentally in conjunction with pen and paper, therefore they are directed to non-statutory subject matter. Specifically, as claimed, it is uncertain what performs each of the claimed program product steps. Moreover, each of the claimed steps, inter alia, checking and loading classes can be practiced mentally in conjunctions with pen and paper. The claimed steps do not define a machine or computer implemented process [see MPEP 2106]. Therefore, the claimed invention is directed to non-statutory subject matter. (The examiner suggests applicant to change “program product” to “computer-readable program product for checking a class being loaded” in the preamble to overcome the outstanding 35 U.S.C. 101 rejection).

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1, 5 – 7, 13, 17 – 19, 25 – 28, and 32 – 34, are rejected under 35 U.S.C. 103(a) as being unpatentable over Bak, US patent no. 6,714,991 in view of Bracha, US patent no. 6,601,114.**

3. **As to claim 26**, Bak teaches the step of

a state/domain checker (checked, col. 2 lines 49 – 67) that performs a plurality of checks when each of a plurality of object oriented classes is loaded (dynamic class loading, col. 2 lines 55 – 65), the plurality of checks determining whether included in a catalog of allowed classes (data structures are often constructed to list all classes, col. 2 lines 50 – 55) that includes all classes that are authorized to access (accessible, col. 2 lines 50 – 55);

signal bearing media (computer-readable media, col. 7 lines 10 – 20) bearing the state/domain checker.

Bak does not explicitly teach that the catalog including the allowed classes that are authorized to access at least one protected class.

Bracha teaches the steps of checking condition for a class being loaded accesses at least one protected class (protected class, col. 3 lines 25 – 67 and col. 21 lines 25 – 55), and generating an exception (exception, col. 3 lines 65 – 67) if the constraints of an operation is violated.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Bak and Bracha's system because Bracha's checking for classes accessing to protected class would provide the system the ability to verify and only keeps the allowed classes in the catalog to as a design choice.

4. **As to claims 27 and 28**, Bak teaches the signal bearing media comprises recordable and transmission media (computer- readable media, col. 7 lines 10 – 20).
5. **As to claim 32**, Bracha teaches the step of wherein a class is a protected class if the class is defined as a private domain class (private class is also considered to be protected and access certain member, col. 3 lines 50 – 60) or a system state class.
6. **As to claim 33**, Bracha teaches the step of the plurality of checks includes a check during class verification (verification, col. 4 lines 35 – 50) that determines whether a class being verified implements a private domain interface (private class is also considered to be protected and access certain member, col. 3 lines 50 – 60) or a system state interface, and if the class being verified implements a private domain

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interface or a system state interface, and if the class being verified is not included in the catalog of allowed classes, generating an error.

7. **As to claim 34**, Bak modified by Bracha teaches the step of wherein the catalog of allowed classes is generated during a build process that packages the plurality of classes together into an installable form (col. 7 lines 60 – col. 8 lines 30).

8. **As to claim 1**, it is the apparatus claim of claim 26. See rejection for claim 26 above. Further, Bracha teaches a plurality of object-oriented classes (Java classes, col. 4 lines 10 – 55) each of the plurality of object-oriented classes that is protected including state data that indicates a protected class (protected member, col. 3 lines 50 – 60 and col. 21 lines 25 – 55).

9. **As to claims 5 - 7**, see rejection for claims 32 – 34 above.

10. **As to claim 13**, it is the method claims of claim 26. See rejection for claim 26 above. Further, Bracha teaches loads a plurality of Java classes (loading Java classes, col. 4 lines 10 – 55) each of the plurality of Java classes that is protected including state data that indicates a protected class (protected member, col. 3 lines 50 – 60 and col. 21 lines 25 – 55).

11. **As to claims 17 - 19**, see rejection for claims 32 – 34 above.

12. **As to claim 25**, it is the program claim of claim 13. See rejection for claim 13 above. Further, Bak teaches the step of compiling Java source code (Java compiler, col. 7 lines 60 – col. 8 lines 20).

***Allowable Subject Matter***

13. Claims 2, 8 - 11, 14, 20 - 23, 29, and 35 - 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

14. Applicant's arguments with respect to independent claims 1, 13, 25, and 26, have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

15. The prior art made of record but not relied upon request is considered to be pertinent to applicant's disclosure.

Gong, US patent no. 6,044,467, demonstrating a secure class resolution and class loading.

Java "Dynamic class loading", demonstrating loading Java classes.

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16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong N. Hoang whose telephone number is (571)272-3763. The examiner can normally be reached on Monday - Friday 9:00 am to 5:30 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571)272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ph  
November 15, 2004

  
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